

Standard Lime & Stone Quarry,
Kiln No. 4, 5
County Route 27
Millville
Jefferson County
West Virginia

HAER No. WV-49-F

HAER
WVA
19-MILLY,
IF-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
MID-ATLANTIC REGION, NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
PHILADELPHIA, PENNSYLVANIA 19106

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Location: Standard Lime & Stone Quarry, eastern edge of plant area, County Route 27, Millville, Jefferson County, West Virginia.

UTM: 18.4353620.260170
Quad: Charles Town, West Virginia

Significance: The remains of Kilns No. 4 and 5 are an example of one type of furnace used during the firing phases of dolomite processing.

Description: The two kiln ruins were "rotary" kilns 7 feet in diameter and 100 feet long set on top of concrete piers. Each kiln was composed of a brick-lined steel cylinder that was slightly inclined. The body was supported on a set of rollers at two points and, while operating, revolved very slowly on rollers, rotating and heating the contents evenly. A section of a brick-lined vertical cooling tower still stands at the east end of Kiln No. 4. Only the concrete piers survive from Kiln No. 5.

History: The manufacturer of Kilns 4 and 5 is unknown. They were installed by the Standard Lime & Stone Company c. 1937 to be used for the Magnesium Oxide (P32) Operation in the manufacture of lime flux and lime hydrate and were removed by Martin-Marietta Corporation when operations ceased at the quarry site. Pulverized dolomite was burned in the first rotary kiln to produce pebble lime. The pebble lime was cooled in a vertical cooling tower then dissolved in water. The magnesium solids in the solution were allowed to settle in basins then removed. Iron and silica were added to the magnesium sludge and burned in the second rotary kiln. The final products, Stayset and Staycrete, were transported to steel mills to be used as furnace flux.

Sources: Grimsley, G.P. and White, I.C. West Virginia Geological Survey, Jefferson, Berkeley, and Morgan Counties. Wheeling: Wheeling News Litho. Co., 1916.

Standard Lime & Stone Quarry,
KILNS No. 4, 5
HAER No. WV-49-F (Page 2)

Sellards & Grigg, Inc./GEI Consultants, Inc.
"National Education and Training Center,
Engineering Property Assessment for Old
Standard Quarry Property (Martin Marietta
Quarry Site), Site No. 2, Vol. 1." Report
prepared for U.S. Fish and Wildlife Service,
Denver, 1990.

Historian:

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Greenhorne & O'Mara, Inc.
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